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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,038	07/09/2003	J. Erik Hitzelberger	380-048	9795
1009	7590	01/25/2006	EXAMINER	
KING & SCHICKLI, PLLC 247 NORTH BROADWAY LEXINGTON, KY 40507			TILL, TERRENCE R	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Am

Office Action Summary	Application No. 10/616,038	Applicant(s) HITZELBERGER ET AL.	
	Examiner Terrence R. Till	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/23/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Veres.

3. Veres discloses a dirt container comprising: a housing 24 including a dirt collection chamber; a filter 46 in said dirt collection chamber; a pre-filter 42 in said dirt collection chamber between said filter and a floor of said dirt collection chamber, said pre-filter including at least one airflow passageway 60 in a face of said pre-filter between an inner edge and an outer edge thereof.

4. Claims 1-5 and 8-10 rejected under 35 U.S.C. 102(e) as being anticipated by Stephens et al.

5. Stephens et al. discloses a vacuum cleaner comprising a housing including a nozzle assembly 2 and a canister assembly 16; a dirt container 28 connected to said housing, said dirt container including a collection chamber and a combined handle and inlet flow passageway 46,56; an airstream conduit 12 for conveying a vacuum airstream from said nozzle assembly to said inlet flow passageway; and a fan and motor assembly (located within housing 24) for generating said vacuum airstream and drawing dirt and debris through said airstream conduit and

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said inlet flow passageway into said collection chamber. Said dirt container is connected to said canister assembly, said inlet flow passageway includes a delivery port 94 in communication with said collection chamber, said collection chamber is substantially cylindrical in shape and said delivery port is oriented substantially tangentially with respect to said collection chamber (see figure 4), and said dirt container includes a filter 34 and a discharge outlet 62.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens et al. in view of Rockwell et al.

10. The patent to Stephens et al. discloses the claimed invention except that Stephens et al. do not disclose a pre-filter partially across the collection chamber and between the filter and the floor of the dirt container. The patent to Rockwell et al. shows a cyclonic filter arrangement that has a dirt container 35, a tangential inlet 40, a filter 88 located within the dirt container and a pre-filter (baffle) 62 extending at least partially across the collection chamber and between the filter and the floor of the dirt container. Thus, the cyclonic filter assembly is an equivalent structure known in the art. Therefore, because these two cyclonic filter assemblies were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the filter assembly of Stephens et al. for the pre-filter and filter assembly of Rockwell in order to have the pre-filter prevent re-entrainment of dirt particles into the cyclonic airflow, which increases separation efficiency.

11. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens et al., as modified by Rockwell et al., as applied to claims 6 and 11 above, and further in view of Conrad et al.

12. Stephens et al., as modified by Rockwell et al., do not disclose said pre-filter includes at least one airflow passageway in a face of said pre-filter between an inner edge and an outer edge thereof. However, the patent to Conrad et al. discloses (figures 16-18) a cyclonic separator arrangement that has a dirt container 46, a tangential inlet 34, an outlet 36 located within the dirt

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container and a “pre-filter” (baffle) 110 extending at least partially across the collection chamber and between the outlet and the floor of the dirt container. Conrad et al. further discloses at least one airflow passageway 52 (figure 18) in a face of said pre-filter between an inner edge and an outer edge thereof. It would have been obvious to a person skilled in the art at the time the invention was made to modify the pre-filter of Stephens et al., as modified by Rockwell et al., to have at least one airflow passageway in a face of said pre-filter between an inner edge and an outer edge thereof in view of the teaching of Conrad et al. as these two pre-filters/baffles were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the pre-filter/baffle of Stephens et al., as modified by Rockwell et al., with the pre-filter/baffle of Conrad et al.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sepke ‘804 in view of Rockwell et al.

14. The patent to Sepke et al. discloses a vacuum cleaner, comprising a housing including a nozzle assembly 12 and a canister assembly 58; a dirt container 18 connected to said housing, said dirt container including a collection chamber holding a filter 60; an airstream conduit 34 for conveying a vacuum airstream from said nozzle assembly to said dirt container; and a fan and motor assembly 50 for generating said vacuum airstream and drawing dirt and debris through said airstream conduit into said collection chamber. Sepke does not disclose a pre-filter located between the filter and floor of the dirt collection chamber characterized by at least one airflow passageway in a face of said pre-filter between an inner edge and an out edge. The patent to Rockwell et al. shows a cyclonic filter arrangement that has a dirt container 35, a tangential inlet 40, a filter 88 located within the dirt container and a pre-filter (baffle) 62 extending at least

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partially across the collection chamber and between the filter and the floor of the dirt container.

It would have been obvious to a person skilled in the art at the time the invention was made to provide a pre-filter/baffle to Sepke '804 between the filter and floor of the dirt container in view of the teaching of Rockwell et al. in order to have the pre-filter prevent re-entrainment of dirt particles into the cyclonic airflow, which increases separation efficiency

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Semon, Oh et al., Thur et al., Hamrick, Bair et al., Hawkins et al. and Sepke et al. '453 show the current state of the art in cyclonic separation apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sun U. Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Terrence R. Till". The signature is fluid and cursive, with a large, stylized "T" and "R".

Terrence R. Till
Primary Examiner
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trt